

Confirmation No. 7347

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant:	SHRIVASTAVA <i>et al.</i>	Examiner:	Knoll, C.
Serial No.:	10/566,515	Group Art Unit:	2111
Filed:	January 30, 2006	Docket No.:	US030254US2 (NXPS.281PA)
Title:	MICROCONTROLLER WITH AN INTERRUPT STRUCTURE HAVING PROGRAMMABLE PRIORITY LEVELS WITH EACH PRIORITY LEVEL ASSOCIATED WITH A DIFFERENT REGISTER SET		

---

REQUEST FOR RECONSIDERATION OF APPEAL DECISION

Commissioner For Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Customer No. <b>65913</b>
------------------------------

Dear Sir:

This Request for Reconsideration is submitted pursuant to 37 CFR § 41.52 and in response to the Appeal Decision dated March 26, 2010. Please reconsider the Appeal Decision in view of the following arguments and remarks.

Authorization is provided to charge **Deposit Account No. 50-4019 (US030254US2)** any fees related to this filing.

### Arguments

#### **The Board Of Patent Appeals And Interferences (“Board”) Should Reconsider The Rejection Of All Claims Because The Registers Of The Mitsuhiro Reference Are Not Internal To A Central Processor Chip.**

The Appeal Decision dated March 26, 2010 (the “Appeal Decision”) confuses the difference between computers and individual chips (of a computer) when it states that “the registers of Mitsuhiro reference are internal to the computer.” Appeal Decision, p. 6. This statement, however, is misleading as a special function register is a register that is internal to the particular processor chip (*e.g.*, microcontroller or central processor unit (“CPU”)). Many elements can be internal to a computer, yet external to any one of the chips or CPU of the computer. The registers of the Mitsuhiro reference are just such elements.

The apparent confusion between a computer and a microcontroller or central processor chip renders this portion of the Decision improper. Accordingly, Appellant requests reconsideration because the registers of the Mitsuhiro reference, whether or not internal to a computer, are not internal to a central processor or microcontroller.

#### **The Board Should Reconsider The Rejection Of All Claims Because Of The Structural Differences Between The Registers Of the Mitsuhiro Reference And Special Function Registers.**

Appellant submits that the Board of Patent Appeals and Interferences’ (the “Board”) conclusion regarding “a statement of intended use” (Appeal Decision, p. 6) was not part of the grounds of rejection presented by the Examiner. As discussed below, Appellant is also requesting that the Board recognize the new grounds so that Appellant is afforded the opportunities for response required under the U.S.P.T.O. rules and regulations. In the alternative, Appellant also requests that the Board reconsider the affirmation of the Examiner because there are structural differences between the registers of the Mitsuhiro reference and “special function registers.”

There is no evidence to dispute that the term “special function register” is a term of art used to describe a particular class of hardware registers. The aspects of this class of

hardware registers were identified in the Briefs and represent structural aspects of the registers. These structural aspects would be readily apparent independent of actual use of the registers. That is to say, that a person looking at the hardware configuration of a specific chip would be able to find and distinguish special function registers from general registers. These distinctions, while often discussed in terms of their resulting functionality for simplicity, are no less structural than any mechanical device. Moreover, the skilled artisan would not view the registers of the Mitsuhiro reference as special function registers simply because someone (allegedly) intended to try to use them as such.

Appellant submits that, given a computer system that includes a microcontroller/processor (*e.g.*, the Intel 8051 microcontroller) or similar processing chip and the means to examine the hardware structure/circuitry thereof, a person would be able to identify special function registers and to distinguish them from general registers, such as those of the Mitsuhiro reference. This review would not require any knowledge of a subsequent person's "intended use" of the registers. Perhaps the easiest structural aspect to conceptualize is that the term of art "special function registers" denotes registers that are internal to the chip itself because they are physically tied to functions of the chip (*e.g.*, serial ports, the analog-to-digital converters, the timers, and perhaps most important, the input-output pins). Other aspects relate to the close relationship special function registers have to the processor functions and that they allow for direct control of the various functions of the processor, which is related to their integration into the processor itself. These aspects are realized by the specific hardware integration of the special function registers with the internal workings of the processor. Thus, while the functions of the registers may not be realized unless the processor is being used, the structures that provide the functions are real and exist independent of their use.

For at least these reasons, the Board's new factual conclusions should be reconsidered and the Examiner should be reversed.

**The Board Should Expressly Recognize That The Appeal Decision Introduced New Grounds Of Rejection.**

Appellant requests that the Board reconsider the affirmation of the Examiner's rejection and clarify that new grounds of rejection have been introduced in the Instant Appeal Decision. As explained herein, the Board failed to properly indicate that new grounds for rejection were presented. Appellant submits that the issues raised herein are a direct consequence of the Board's decision and presentation of new grounds of rejection. Thus, Appellant could not have raised these issues earlier. Had the Board correctly identified the new grounds of rejection, Appellant would have been afforded the opportunities to challenge such new grounds under the relevant legal standards and rules.

The overarching issue in the instant Appeal was whether Appellant showed reversible error in the Examiner's findings regarding the alleged teachings of the references and the articulated reasoning for the legal conclusion of obviousness. The Board's analysis of the Examiner's findings answers this question in the affirmative. Rather than affirming the specific reasoning behind the Examiner's grounds for rejection, the Board presented new grounds for rejection premised upon a new finding of facts that was not previously of record. The record shows that Appellant contested conclusions and factual findings made by the Examiner, which were fatal to each of the Examiner's rejections. The Board did not reach a conclusion regarding the Examiner's findings of fact and instead presented a new findings of fact to which Appellant has not been afforded an opportunity to address in a full and fair manner, thereby failing to fully and fairly address the issue at the administrative level, without interim need for judicial intervention.

The Board's affirmation of the Examiner and failure to properly designate the new findings of fact as new grounds of rejection has denied Appellant the opportunity to produce evidence and argument, which might rebut the Board's materially-different grounds of rejection. The affirmation of an examiner upon a previously "nonexistent rejection violates the statutory mandate that the Board review 'adverse *decisions of examiners* upon applications for patents,' 35 U.S.C. § 6(b) (2000) (emphasis added), as well as the strictures

of 37 C.F.R. § 1.196(a), which specifies that with respect to the grounds of rejection before it, the Board, in deciding the appeal, must either ‘affirm or reverse the decision of the examiner . . . on the grounds and on the claims specified by the examiner, or remand the application to the examiner for further consideration’ (emphasis added).” *In re McDaniel*, 293 F.3d 1379, 1385 (Fed. Cir. 2002). *See also*, 37 C.F.R. § 41.50(a) (emphasis added), “The Board, in its decision, may affirm or reverse the decision of the examiner in whole or in part *on the grounds . . . specified by the examiner.*”

New grounds of rejection should be acknowledged when changes are made to the *precise reason* for the rejection and not upon the statutory basis alone. *See, e.g., Hyatt v. Dudas*, 551 F.3d 1307, 1312 (Fed. Cir. 2008) (“a ‘ground of rejection’ for purposes of Rule 1.192(c)(7) is not merely the statutory requirement for patentability that a claim fails to meet but also the precise reason why the claim fails that requirement.”) Accordingly, it is not proper to materially-change the precise reason for the rejection without acknowledging that such a change represents a new ground of rejection.

Moreover, the U.S.P.T.O. places prohibitions on the entrance of new evidence by a patent applicant at this late stage of prosecution<sup>1</sup>. These prohibitions encourage an Applicant to present evidence at an early stage of prosecution and thereby help ensure that the issues are clearly laid out before an Appeal to the Board is made. As a *quid pro quo*, the U.S.P.T.O. rules state new grounds for rejection should be identified as such<sup>2</sup>. The identification of such new grounds is of vital import as new grounds are not considered final for judicial review and also affords a patent applicant with several procedural options for addressing the new grounds<sup>3</sup>.

---

<sup>1</sup> *See, e.g.,* M.P.E.P. § 1206 (“An amendment, affidavit or other evidence received after jurisdiction has passed to the Board should not be considered by the examiner unless remanded or returned by the Board for such purpose”)

<sup>2</sup> *See, e.g.,* 37 C.F.R. § 41.50 (“Should the Board have knowledge of any grounds not involved in the appeal for rejecting any pending claim, it may include in its opinion a statement to that effect with its reasons for so holding, which statement constitutes a new ground of rejection of the claim.”)

<sup>3</sup> *See, e.g.,* 37 C.F.R. § 41.50 (“A new ground of rejection pursuant to this paragraph shall not be considered final for judicial review.”)

The logic behind such requirements should be clear. For instance, had the Examiner correctly recognized the errors in the Examiner's rejection, as implicitly acknowledged by the Board, the Examiner would have been required to withdraw the rejections and either allow the case or present a new basis for rejecting the claims. Appellant would have then had ample opportunity to respond with argument and evidence or, if necessary, to make amendments to the claims. Appellant should not be denied this opportunity simply because the Examiner failed to recognize these deficiencies, thereby forcing the Board to temporarily take the place of the Examiner. Here, the Board did not affirm the Examiner's grounds for the rejection, and instead introduced new grounds while improperly affirming the Examiner. Regardless of the validity of any newly-crafted grounds for rejection, the Board has not addressed whether or not Appellant successfully overcame all issues presented in the Appeal and whether or not the Examiner's rejections should have been reversed.

Appellant recognizes that the U.S.P.T.O. rules grant the Board the power to put forth new grounds for rejection. In doing so, the Board effectively takes the place of the Examiner by presenting new arguments, evidence and/or findings of fact; however, the U.S. P.T.O. rules also provide several avenues of recourse for an Appellant should the Board choose to exercise this power. If patent applicants were to be denied such avenues of recourse, the ramifications would be severe. For instance, any error in the Board's newly presented argument could not be rebutted by argument or evidence<sup>4</sup>. Since it would be unreasonable to expect an Applicant to predict any and all conceivable positions that the U.S.P.T.O. might take with regards to a particular set of facts, irrespective of their validity, any denial of such recourse is not merely harmless error.

In this instance, the Board presented new factual conclusions that are premised upon a newly-asserted legal rationale (*i.e.*, an alleged lack of structural distinction). By presenting these new conclusions, the Board chose to introduce new grounds of rejection rather than

---

<sup>4</sup> See, e.g., 37 C.F.R. § 41.52(a)(1) "Arguments not raised in the briefs before the Board and evidence not previously relied upon in the brief and any reply brief(s) are not permitted in the request for rehearing except as permitted by paragraphs (a)(2) and (a)(3) of this section."

affirm the Examiner's grounds of rejection<sup>5</sup>. Thus, even though the Board rejected the claims using the same statutory basis as the Examiner, the Board clearly changed the *precise reason* for why the claims were asserted as failing a statutory requirement. The U.S.P.T.O. rules, as interpreted by the Federal Circuit, require that such changes be considered new grounds. *Hyatt v. Dudas*, at 1312 (Fed. Cir. 2008). In view of this material change in the precise reason for rejecting the claims, the Board should not have affirmed the Examiner and should have recognized that new grounds for the rejection were presented.

The Board's improper affirmation has the effect of precluding Appellant from presenting new arguments and evidence that would rebut the new findings, arguments and legal conclusions. Without having been afforded the required avenues of recourse, such as those provided by 37 C.F.R. § 41.50(b), Appellant has been improperly denied the opportunities required by the Administrative Procedure Act<sup>6</sup>. As examples of possible harm, Appellant submits the very real possibility that the Board may have overlooked a material aspect of the record, failed to consider one or more factors relevant to patentability or simply was unaware of additional evidence that has not been submitted, such evidence might shed additional light on the Board's new findings. For at least these reasons, the Board should acknowledge the new grounds for rejection and afford Appellant the avenues of recourse required by the PTO rules.

In view of the above, Appellant respectfully requests that the Board expressly acknowledge its reversal of the Examiner's rejections of each of the claims and the new grounds of rejection presented by the Board in the Appeal Decision.

---

<sup>5</sup> The Examiner's grounds of rejection rested the use of interrupts as redefining the term of art "special function register." No support was provided for this attempted redefinition of the term of art.

<sup>6</sup> See, e.g., *In re Kumar*, 418 F.3d 1361, 1367 (Fed. Cir. 2005) ("In accordance with the Administrative Procedure Act, the agency must assure that an applicant's petition is fully and fairly treated at the administrative level, without interim need for judicial intervention. See *Dickinson v. Zurko*, 527 U.S. 150, 154, 144 L. Ed. 2d 143, 119 S. Ct. 1816 (1999) (the PTO is an agency subject to the Administrative Procedure Act). The Board's rules are in accord. See 37 C.F.R. § 1.196(b) (when the Board relies on a new ground of rejection, it is appropriate to provide the applicant with an opportunity to respond to that ground)."

Serial No. 10/566,515  
Docket No.: US030254US2  
Request for Reconsideration of Appeal Decision

In view of the above, Appellant submits that the Board's decision is improper, reverses the Examiner's rejections of claims 1- 21 and constitutes new grounds of rejection. Appellant therefore requests that these rejections be reversed and/or identified as new grounds of rejection by the Board so that Appellant is afforded a fair opportunity to respond thereto (*e.g.*, as provided under 37 C.F.R. § 41.50(b)).

*Please direct all correspondence to:*

Corporate Patent Counsel  
NXP Intellectual Property & Standards  
1109 McKay Drive; Mail Stop SJ41  
San Jose, CA 95131

CUSTOMER NO. 65913

Respectfully Submitted,

By: 

Robert J. Crawford  
Reg. No.: 32,122  
Shane O. Sondreal  
Reg. No.: 60,145  
Tel: 651 686-6633 Ext. 2300  
(NXPS.281PA)